

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/073,414

REMARKS

Claims 1-15 are all the claims pending in the application, including new claims 11-15 added by the present Amendment.

Claims 5-8 have been deemed allowable over the art of record, but are objected to for depending on rejected base claims.

The drawings are objected to, because the Examiner believes that the main scanning position detecting means recited in claim 2 is not shown in the drawings. Applicant submits that the objection to the drawings is improper, because the rotary encoder 30 (FIG. 2) corresponds, in an exemplary embodiment, to the main scanning position detecting means of claim 2, and thus, the main scanning position detecting means is shown in the drawings.

The title of the invention is objected to as not being descriptive. Applicant amends the title as shown above in the Amendments to the Specification section.

Claim 3 is rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The Examiner asserts that neither the main scanning position detecting means nor the switching generating means for generating a switching signal being based on the main scanning position detecting signal from the main scanning position detecting means is supported by the specification. Although the Office Action indicates claim 3, the rejection is actually directed to claim 2, as shown by the claim language of these two claims. In response, Applicant directs the Examiner's attention to page 5, lines 2-16. One skilled in the art would

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understand the inter-relationship of the main scan position detector and switch signal generation based on this exemplary description. Thus, this rejection is hereby overcome.

Claim 10 is rejected under 35 U.S.C. § 112, first paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. This rejection is based on the recitation of claim 10 of the deflection direction being different from either one of the main scanning direction and the auxiliary scanning direction, as compared to the recitation of claim 1 of the light beam being deflected in a direction different from the main scanning direction. The Examiner asserts that these two features of the claims are confusing and conflicting, but Applicant submits that the claims do not conflict and are not indefinite. Both claim 1 and claim 10 recite that the deflection direction is a direction different from the main scanning direction. Thus, the Examiner's assertion that claim 1 recites deflecting the light beam (primarily) in the main scanning direction is not correct. Also, the fact that claim 10 adds a feature of the deflection direction being different from the auxiliary scanning direction does not add a conflict with claim 1. Thus, claim 10 is definite.

Claims 1-4, 9, and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Masaki et al. (JP 11-1020) in view of Whitney (US 4,541,712). Although the Office Action (page 4, paragraph 9) lists Hosokawa (US 6,348,941) as being combined with Masaki et al., the Examiner confirmed in a teleconference on June 25, 2003, that Whitney is actually being applied in combination with Masaki et al. in the rejection. Applicant respectfully traverses the rejection with the following comments.

With respect to claim 1, Masaki et al. do not teach or suggest the light beam deflecting means disposed in a light path of the light beam, for deflecting the light beam a small distance in

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a direction different from the main scanning direction, based on a switching signal. Specifically, Masaki et al. do not disclose deflecting the light beam based on a switching signal. The Examiner asserts that the switching of the AOD 69 is controlled by the scanning signal SD based on the scanning start signal SS. As stated in the Abstract of the reference, “A scanning signal generating circuit 136 generates an AOD scanning signal SD for controlling the AOD 69 based on the scanning start signal SS generated by the start signal generating circuit 10.” In other words, it is a scanning signal SD, which is based on another scanning signal SS, that controls the AOD 69. Therefore, Masaki et al. do not disclose a switching signal upon which deflecting the light beam is based. Therefore, claim 1 is allowable over the prior art.

Additionally, though Masaki contemplates image formation in two directions, the scan described in connection with the AOD 69 is deflection in a main scan to reduce a cycle time. By contrast, claim 1 describes deflection in a direction different from the main scan.

With further regard to claim 1, Applicant submits that the prior art fails to teach or suggest a delay signal generating means for generating a delay signal delayed from the switching signal by a predetermined time, depending on the time required for the light beam deflecting means to deflect the light beam. The Examiner concedes that Masaki et al. do not teach the delay signal being delayed from the switching signal depending on the time required for the light beam deflecting means to deflect the light beam, but asserts that Whitney makes up for this deficiency of Masaki et al. However, the disclosure of Whitney as described by the Examiner on page 5 of the Office Action fails to disclose the claimed limitations of claim 1. The Examiner asserts that Whitney discloses “a delay to compensate for the fact that the laser beams do not scan the same location on the recording medium, some laser beams preceding others (col. 12,

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line 58 to col. 13, line 5) taking into account the x and y-axes positioning errors.” Even if the assertion is correct, however, claim 1 does not recite the features described by the Examiner. Instead, claim 1 recites a delay signal … delayed depending on the time required for the light beam deflecting means to deflect the light beam. Whitney lacks a disclosure of this feature of claim 1. Hence, claim 1 is allowable over the prior art for this reason as well.

Additionally, there is no suggestion or motivation to combine the references. The Examiner asserts that the motivation for modifying the device of Masaki et al. by the teachings of Whitney would have been to prevent overlap of the main scanning lines as well as to allow the alignment of the contiguous blocks of integrated pattern information. However, Masaki et al. do not disclose overlap of the main scanning lines or alignment of the contiguous blocks of integrated pattern information to be lacking in any way. Moreover, the Masaki et al. reference is concerned with reducing a period of time for image drawing by reducing a scanning cycle of an optical beam. Thus, claim 1 is allowable over the prior art for this reason too.

Also, claims 2-4, 9 and 10 are allowable over the prior art, at least because of their dependence from claim 1.

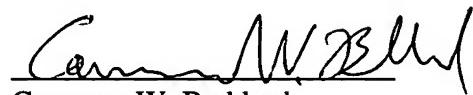
Claims 11-13 are added to describe the invention using non-means-plus-function form, and claims 14-15 to describe features of the invention more particularly.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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